

## PPESCO Risk Matrix – Project

Risk to PPESCO Project	Impact	Probability	Mitigation Strategies
Client's key financiers, funders, regulators, etc., do not approve contracts	High	Medium	<ul style="list-style-type: none"> <li>Help client understand, early, necessary approvals</li> <li>Keep key people informed, as appropriate, on contract approval steps</li> <li>Advocate changes to laws, regulations impeding EPCs</li> </ul>
Positive cash flow deal cannot be devised	High	Low	<ul style="list-style-type: none"> <li>Create and adhere to screening criteria for clients, with clear go / no-go rules</li> <li>Give the client a well-supported assessment of cash flow, early in the screening process</li> </ul>
Client defaults on loan because of under-performance of energy savings	High	Low	<ul style="list-style-type: none"> <li>Create and maintain an adequate loan loss reserve</li> <li>Structure PPESCO and portfolios as LLCs</li> <li>Communicate frequently with the client to avoid default surprises, and to reduce the possibility of a default</li> </ul>
Tenant behavior reduces client savings	Medium	High	<ul style="list-style-type: none"> <li>Make sure long-term contract specifies requirement and schedule for providing information to tenants about optimizing building energy performance</li> <li>Use measures that reduce the need for tenant to adjust controls</li> <li>Include clear "standards of comfort" in EPC</li> <li>Help influence tenant behavior, using effective feedback</li> </ul>
Planned energy improvements in the building are significantly modified during installation	Medium	Medium	<ul style="list-style-type: none"> <li>Specify performance standards for installations</li> <li>Require written PPESCO approval for modifications</li> <li>Provide good construction management oversight</li> <li>Keep client informed and involved throughout project</li> </ul>
Construction costs are higher than estimated	Medium	Medium	<ul style="list-style-type: none"> <li>Provide strong general contractor oversight for projects</li> <li>Use trusted contractors when putting work out to bid</li> <li>Improve training of building engineers to estimate construction costs accurately</li> </ul>
Systems are not operating correctly according to optimal settings	Medium	Medium	<ul style="list-style-type: none"> <li>Train operations and maintenance staff in optimizing practices as part of PPESCO annual services</li> <li>Prove value of monitoring and system correction with specific early examples to clients</li> <li>Install remote monitoring and warning systems</li> <li>Provide periodic system updates and refresher courses</li> </ul>

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Client is not creditworthy when evaluated against standard financing criteria	Medium	Low	<ul style="list-style-type: none"> <li>Determine creditworthiness during project screening</li> <li>Include guaranteed energy savings as a factor in determining creditworthiness</li> <li>Use credit enhancements as needed</li> </ul>
Client does not fully understand contract terms	Low	Medium	<ul style="list-style-type: none"> <li>Identify client personnel who must understand key terms and conditions (operational, legal, financial)</li> <li>Enable peer-to-peer information flow from other clients</li> <li>Use transparent methodology</li> <li>Review contract terms and conditions with the client, prior to closing the deal</li> </ul>
Occupancy rates or changes in use impact client savings	Low	Medium	<ul style="list-style-type: none"> <li>Determine likely savings, using historical occupancy rates and disclose them in project documents</li> <li>Require periodic reporting on building occupancy and use</li> <li>Structure savings guarantee with stipulations for savings adjustments if occupancy rates or building use changes</li> </ul>
Weather impacts negatively affect savings from installed measures	Low	Medium	<ul style="list-style-type: none"> <li>Write into contracts provisions for savings adjustments for weather-related effects</li> <li>Design projects to contain a mix of measures, including those that are impervious to weather-related effects</li> <li>Create a portfolio with a geographical mix to balance weather impacts (hot climate and cold climate mix)</li> </ul>
Changing energy prices significantly reduce savings from installed measures	Low	Low	<ul style="list-style-type: none"> <li>Write into contracts provisions for making savings adjustments for energy price changes</li> </ul>